Ambition in National Commitments following from the Paris Agreement on Climate Change

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ABSTRACT

This dissertation examines how the United Nations Framework Convention on Climate Change (UNFCCC) and the associated policy processes contest, influence, and will lead to transformative change in prevailing unsustainable routines embedded in socio-economic systems. The guiding research question is: whether and how the interplay between a broad range of transnational climate governance authorities and existing modes of intergovernmental cooperation exerts a significant influence on the policy domain of climate change? How we effectively harness the force in raising ambition, in particular on the mitigation issue? This constitutes a study of themes of collective action, global governance, and international relations.

The adoption of the Paris Agreement in 2015 leads to a paradigm shift of international cooperation, leading to the advent of a new governance mechanism: the hybrid multilateralism. Accordingly, the scholarly literature in the field of international relations is currently focusing on new governance like changing patterns of authority in world politics. Nevertheless, comparative studies of the linkage between domestic politics and the new governance are yet to be explored, given the Paris Agreement gives substantial discretion for governments under the Pledge and Review mechanism.

Now, scaling up ambition is at the core of the global climate cooperation agenda. In this vein, the main argument of this dissertation is that the stagnant ambition is attributed to the lack of institutions and political processes to produce a socially acceptable response toward low-carbon economy society. Thus, raising the ambition will rely on how the governments play an effective and significant role as the center of 'non-hierarchical orchestration' in collaboration with transnational and multilateral actors.

From the theoretical framework of the embeddedness, this dissertation presents a narrative exploration of the interplay between the intergovernmental cooperation and diverse domestic political system. To test these theoretical propositions, both quantitative and qualitative methods are employed.

1. INTRODUCTION

The Paris Agreement on Climate Change and its accompanying decision (Decision 1/CP.21) amended the global climate regime in 2015. The Agreement is assessed as an extraordinary political and legal success because it is the first-ever universal, legally binding global climate treaty, with global inclusiveness where the governments of 195 countries engage in the mechanism. However, decoupling between scientists' signals and politicians' reactions sticking in bureaucratic negotiation has led to stagnant actions. Given the type of problem where a delay is exceptionally costly as well as the cycles of nationally determined contributions (NDCs), 2020 is a critical juncture to avoid climate risks to humanity. In this vein, scaling up ambition is at the core of the global climate politics.

Conventionally, public policies have been dominated with neoliberalists' perspectives in which states as unified rational actors are able to manage and solve environmental problems effectively through standards of behavior like international agreements. In this vein, the primary concern in the policy domain of climate change has been a constrained maximization of utility of each state based on a deductive calculation of the remaining carbon budget for last 30 years.

However, much of empirical evidence in climate politics casts doubt on the neo-classical model. The failure of the Kyoto Protocol, the breakdown of the negotiation at the Copenhagen Summit in 2009, and the rising 'emission gap' between current commitments and the action necessary to meet climate targets intensify objections to the assumption that the single-agent is an atomized and utilitarian individual. Insights about actual human behavior make for a significant contrast to the climate reductionism. Given the fact that the consequences resulting from our decisions for climate change have an impact on both individuals and groups at different places and times, therefore, the staggering political complexity of climate negotiations is not sufficiently explained with a small number of assumptions and the hypothesis of individual rational actors.

As Polanyi's trenchant critics of the neo-classical model, much of empirical test in the behavioral analysis show how individual decision-making process is socially constructed, revealing the parallel facet between people's expressed values and beliefs on environmental protection and their actions as consumers and citizens manifesting a reluctance to support policies such as carbon tax.

In light of the contemporary "carbon lock-in system" (Unruh 2002), all economic actors and institutions are enmeshed within the specific historical and institution context, where "social conditions exist a priori to behaviors, and norms and values are deeply internalized" (Ghezzi &

Mingione 2007, p.12). Given the embeddedness in our society, a hybrid approach, the combination of top-down and bottom-up elements, and diversification of actors in the policy-making process are paid attention as the breakthrough innovations to produce a socially acceptable response toward low-carbon economy society.

In this context, the UNFCCC conferences and its policy processes are transforming as a fulcrum for reconciliation of the domain between multilateral diplomacy and an increasing number of transnational governance initiatives. In particular, the Copenhagen Accord in 2009 sparked the decentralizing patterns of global actors in which organizations, rules, implementation mechanisms, financing arrangements, and operational activities have been proliferated (Abbott 2012; see also Keohane & Victor 2011). Since then, linkages between governance networks and broader policy communities have been of growing significance in climate cooperation. A variety of scholars define the rising new governance as 'hybrid multilateralism' and systematically analyzed the phenomena (Abbott 2012; Hickmann 2017; Andonova, Betsill, and Bulkeley 2009).

Despite the dynamic change of authorities in climate politics, however, the domestic actors remain crucial because the new governance is not sufficient without vigorus domestical political will. In the Paris Agreement, a rigorous formula for determining what each country's obligations are as well as a concrete inscription of legal penalites for non-compliance do not exist. Furthermore, some scholars have been criticizing the inability of domestic government and state actors; it nevertheless still holds the highest degree of legitimacy in the NDCs process.

Thus, this article argues that raising ambition and the success of the new type of governance will rely on how the governments play an effective and significant role as the center of 'non-hierarchical orchestration' (Abbott 2012) in collaboration with transnational and multilateral actors. Moreover, this echoes Hickmann's (2017, p.432) assertion that "the changing patterns of authority in global climate policy-making not be conceptualized as a zero-sum game, in which the emergence of authoritative structures beyond central governments and international institutions equals a loss of authority at the expense of state-based forms of regulation. Rather, ongoing reconfiguration of authority apparently reinforces the importance of state-based forms of governance" in raising the ambition of national commitments.

This article focuses on the interlinkage between the complex governance and domestic political institutions in escaping the carbon lock-in system and diffusing decarbonized development norms and practices. The guiding research question is: whether and how the interplay between a broad range of transnational climate governance authorities and existing modes of intergovernmental cooperation exerts a significant influence on the policy domain of

climate change? How we effectively harness the force in raising ambition, in particular on the mitigation issue?

This article constitutes a study of themes of collective action, global governance, and international relations. It explores how and to what extent the UNFCCC and the associated policy processes contest, influence, and lead to transformative change. In particular, with an in-depth analysis of multilateral climate transparency arrangements, this article will analyze to what extent non-state actors lead to enhance the reporting and review process of the UNFCCC and collective climate ambition in setting NDCs, using both quantitative and qualitative methods. A narrative exploration is presented that integrates several different lines of research. The role of non-state actors in climate politics has been alluded to elsewhere but has received only cursory treatment. To my knowledge, no one has examined the systematic impacts of combined current UNFCCC policy processes and interlinkage between state and non-state actors in the domestic policy process. It is therefore hoped that this exploration will illustrate a set of issues that has been undermined in climate change policy debates.

The following is divided into four main sections. The first outlines the theoretical framework, which deploys interdisciplinary insights into contemporary processes and practices of climate governance. The second section lays the analytical design. The third analyzes the legal structure of global climate change, focusing on the evolution of climate governance. The final chapter examines the significance of the non-state actors as a role of diffusing low-carbon economy development norms and practices.

2. THEORETICAL FRAMEWORK

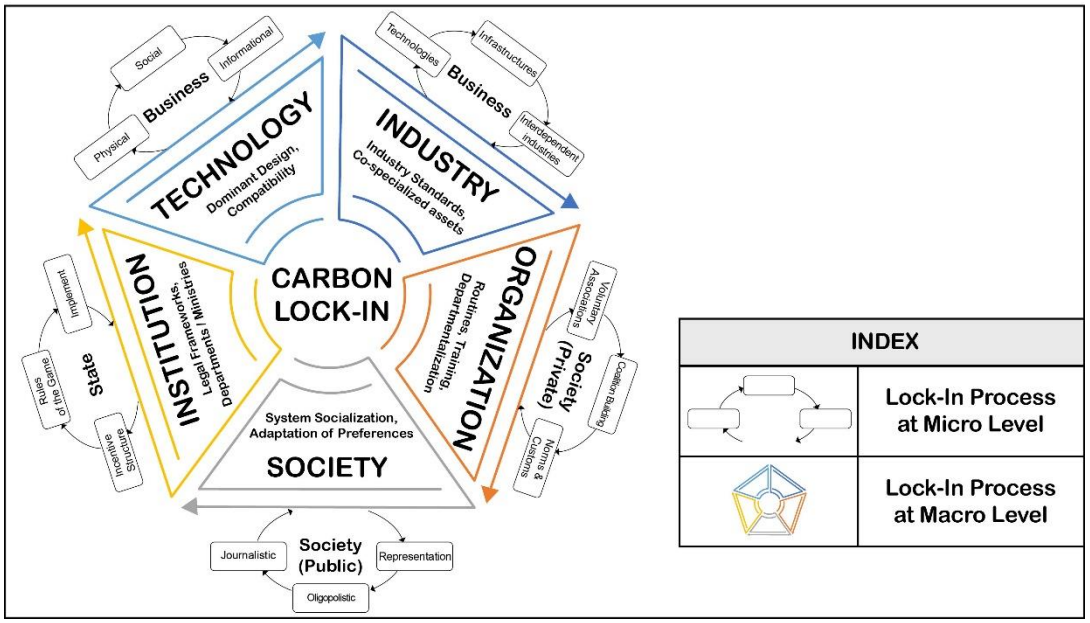
From the adoption of the UNFCCC in 1992 to the Paris Agreement in 2015, governments across the world have formed a variety of intergovernmental processes, showing the intriguing analytical framework. This framework shows how international cooperation has been evolved, and the relationship between state and non-state actors has been transformed on global common goods issues. Specifically, this indicates how hybrid multilateralism becomes paid attention as an alternative to intergovernmental cooperation in raising the ambition of climate politics.

2.1. THE ROOT CAUSE OF INSUFFICIENT AMBITION

The notion of 'Embeddedness' created by Karl Polanyi embodies how social actors are positioned within the specific historical and institutional context in various social networks. He believes social conditions exist a priori to behaviors, and norms and values are deeply internalized. In light of this, the scholarly literatures propose the assumption relevant to discussion on climate change: the contemporary societies are formed, "experiencing convergent trends of transformation resulting in diverse processes of adaptation that evolve from specific social, cultural and cognitive configurations (Ghezzi & Mingione 2007, p.12)", since the industrial revolution. This also brings about the complex principal-agent relations locking into the fossil fuel-based system.

With the end of the Cold War, as the neoliberal economic policies ascended to the peak of world politics, the embeddedness in economic structure has been magnified and intensified. Unruh(2000) conceptualizes this trend with a concept of "carbon lock-in system", defining as "a process of technological and institutional co-evolution driven by path-dependent increasing returns to scale" (Unruh 2000, p.817). With an in-depth analysis of the carbon lock-in process from micro-level (T*echnology Unit*) to macro-level (*Techno-Institutional Complex*), he identifies the durable and sticky routine which was historically derived during the industrialized period and now plays a role as a barrier to raise the ambition for the transition process towards low-carbon economy, persistingly intensifying the solidity of existing market and producing ceaseless policy failures [Figure 1].

Figure 1. Conceptual Diagram of Carbon Lock-In Process*



*Given the embeddedness,the issue of stagnant ambition cannot be isolated from the contexts of social interaction

**Notice: The conceptual diagram is based on Unruh's description on 'carbon lock-in' (See Unruh(2000);Unruh(2012)

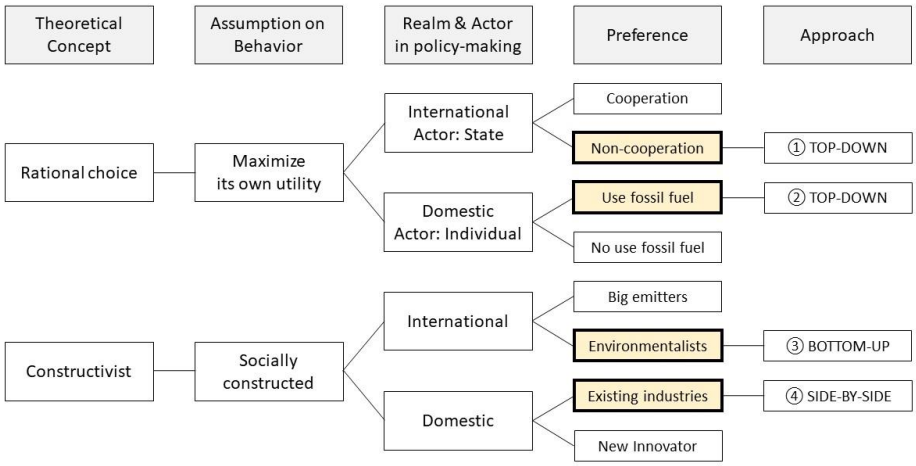
As the carbon lock-in process is schematized in figure 1, the prevailing unsustainable routine has been established through interlocking mechanisms within each level, such as technological units, firms, private associations, and public institutions, as well as between authority domains such as state, business, and society. Also, once a development path is set, the endogenous power to reinforce the mechanism comes out, which plays a role as self-reinforcing barriers to alter or correct the policy problem embedded *in the techno-institutional complex (TIC)*. Given the gravity of the challenge, thus, many scholars have criticized unilateral and rational corrective approaches such as removal of perverse subsidies or the internalization of environmental externalities emerging from fossil fuel use led by the central government (Unruh 2000). This does not mean those approaches should be rejected entirely, but only applying those policies could not be effective without consideration of the complexity of the carbon lock-in mechanism. Moreover, ceaseless policy failures, the deadlock in climate negotiations, and the

inability of governments and society to take ambitious action in almost all OECD and G20 countries is the epitome to support the criticism.

2.2. CONVENTIONAL MODELS OF GLOBAL COMMON GOODS

Conventionally, collective actions on common resources that are rivalrous but non-excludable have been formed with either top-down hegemony of bureaucratic states or bottom-up social movement. These parallel approaches connote two contradicting theoretical concepts of human behavior. The top-down approach is related to a rational choice model in which it assumes that a rational agent behaves to maximize their utility according to their stable and given preference. This embodies the core of the neoclassical behavior model, which regards preferences as an exogenous element. Thus, this approach focuses on constraining maximization of utility with external drivers or hierarchically superior forces in facilitating cooperation and compliance (Hardin 1968; Olson 1971; Rodrigues 2004). On the other hand, the bottom-up approach builds upon the social process that is the main component of the constructivist prism. This calls attention to the unit level variables, such as interdependence, common fate, homogeneity, self-organized, and self-governed enterprises. Given individuals have very similar limited capabilities to reason and figure out the structure of the complex, uncertain, and challenging problems, intelligence and small-scale boundary on the issue is a precondition to catalyze collective actions. In light of this, having a sense of proximity to the issue is the critical determinant in accelerating cooperation [Figure 2].

Figure 2. Formation of Conventional Models based on Assumptions of Human Behavior



APPROACH	DESCRIPTION
① Top-down ② Top-down	From the rational choice perspective,self-interested states will consider climate change issues as a commons problem. Each individual state gains the benefit of some action that results in GHG emissions but imposes the vast majority of the costs on others. Thus,imposing a hard instrument by a superior actor will be an excellent tool to change the behavior to maximize their utility
③ Bottom-up	From the constructivist perspective,human preferences,beliefs,and interests are socially constructed. Thus,diffusing environment norms is the primary concern for them.By expanding the involvement of actors with the proliferation of the environment protection movement,they put the environment issue on the table as a global agenda
④ Side-by-Side	Meanwhile, the influence of existing industries in domestic politics remains robust with its resources. They also have an impact on each citizen's life-style and daily decision-making process. Therefore,making a coalition is crucial to have stronger influence over the existing industries.

The neoclassical behavioral approach is based on the assumptions of 'egoism' and 'utilitarianism': in the absence of externalities, self-interest can lead to an equilibrium that maximizes the satisfaction of individual preferences. However, there are two paradoxes in relation to 'actual' human behavior. Firstly, in terms of individual preference, it is not clear to judge whether it is a genuine preference given in the form of revealed preference (choice). "It is very much an open question as to whether these behavioral characteristics can be at all captured within the formal limits of consistent choice on which the welfare-maximization approach depends" (Sen 1977, p.324). Secondly, with regards to the maximization hypothesis, it is also a debatable question as to whether the outcome of individual choice depends solely on their own consumption. This is in contrast to rational choice theory in the sense that an individuals' welfare depends on their own consumption (Green 2008). In reality, individual decision-making is not able to be separated into the social context. For instance, people may be fully informed about the benefits of making climate-friendly choices for their welfare, but they are not worth the cost according to their satisfaction with life-style in the carbon lock-in system. Also, individuals cannot gain complete and perfect information in reality. Thus, individual choice only exhibits bounded rationality: "individuals rely on heuristics in making decisions that can result in making choices that they believe are in accordance with their preferences or values, but in actuality are not" (Green 2008, p.80).

In light of this, much empirical evidence gives much reason to reveal the fact that global climate politics stepped off on the wrong foot at the initial stage. Since the wicked transboundary policy problem has become remarkably increased, constrained utility maximization has been a persistent one in global environmental politics. In general, neoliberalist's international regime theory has been dominated in which scholars studying environmental negotiations treat states as a main analytical unit, presuming unified rational actors and their interests remain static. They believe international cooperation can be facilitated by establishing standards of behavior through the process of 'convergence of expectations.' Krasner articulates this belief by defining a regime as "sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations" (Krasner 1982, p.186). Furthermore, Puchla and Hopkins support Krasner's idea by arguing that "wherever there is regularity in behavior, some kinds of principles, norms or rules must exist to account for it" (Puchala & Hopkins 1982, p.247). They assume states are able to handle global problems by formulating a sort of simple structured consensus with the visible principles, unitary policy target, and linear procedures. On the premise that regime has an impact on states' behavior, they assume individuals are able to gain by "the creation of explicitly collective contracts in which all are

compelled to contribute each gives up her capacity to free-ride in return for being able to prevent others from free-riding. The state is seen as the institutional embodiment of those collective contracts" (Brennan 2009, pp.311; See also Buchanan 1976).

A top-down approach to an international environment policy agreement – as, for example, embodied in the Montreal Protocol on Substances that Deplete the Ozone Layer – is managed by a robust multilateral institution and based on legally binding commitments for constraining maximization utility. Realizing the catastrophic outcome globally resulting from Chlorofluorocarbons (CFCs) use (*convergence of expectations*), all 197 countries ratified the treaty restraining use of the specific substance. Consequently, the multilateral treaty resulted in nearly 99% of ozone-depleting substances phased-out to date. The Montreal case makes sense that international regimes prevent individual states from searching for utility maximization from acting to secure their Pareto-optimal outcomes with certain restrictive conditions (Krasner 1982).

While this model makes intuitive sense and logical process of the complex transboundary policy problem between domestic politics and intergovernmental cooperation, however, this approach hinges upon whether the cause of problem is relatively identical with single factor.

In common with the Montreal Protocol, the Kyoto Protocol is an example of a top-down approach in which it is composed of legally binding commitments for emission reduction and hard instruments such as monetary or trade sanctions in case of non-compliance. In order to advance and expand commitments, the Protocol is designed with the specific mechanisms such as using clear numerical criteria to specify levels of emissions or development at which governments would take more stringent mitigation commitments. However, a fully-fledged top-down approach did not happen because of the lack of support among governments to be seriously considered for international mitigation policy, revealing "a general unwillingness to accept stringent mitigation commitments and control of their achievement by an international institution" (Climate Policy Info Hub 2015).

As all economy-wide activities brings about the climate crisis, it is not clear to designate a single factor (preference) to constrain and control behavior. Given the carbon lock-in system, the complexity of the problem and system dynamics has not fit into the constrained maximization utility model. Therefore, treaty-based intergovernmental cooperation based on a static conceptualization of actors' behavior and its fixed preferences does not sufficiently motivate people to act in combating climate change.

Based on the recognition of bounded rationality and bounded self-interest in actual human behavior: people's choices are influenced by social instruments; bottom-up approaches have

become more fashionable since the post-2009 fatigue with top-down mitigation policies. According to the constructivist belief, people's preferences are socially constructed. As the notion of embeddedness proposed by Karl Polanyi, people's behavior is positioned within a specific social context. In this sense, the formation of collective identity and value by diffusing social norms and interests is critical to facilitate cooperation.

The breakdown of negotiations at the Copenhagen Summit in 2009 indicated the fallacy of the assumption on rational state actors and unitary and linear policy approaches. Accordingly, the involvement of non-state actors, organizations, rules, implementation mechanisms, financing arrangements, and operational activities have been proliferated, which some scholars called it "Cambrian explosion" (Abbott 2012; see also Keohane & Victor 2011). In particular, the decentralizing patterns of global governance actors have become a trend, bringing about various forms inside and outside the UNFCCC. For example, in the framework of Group of 20, the leaders from big emitters countries declared their mitigation engagement through trade-related policies. The unilateral pledges of mitigation action between U.S. President Barack Obama and Chinese President Xi Jinping in 2014 are also the case. However, there is a critical challenge with bottom-up approaches in the sense of comparability and consistency in dynamic and heterogeneous actions. To date, there is no empirical evidence that bottom-up approaches are tracked on the lowest global cost mitigation path compared to a business-as-usual emissions pathway. Also, in domestic policymaking, where voluntary agreements between governments and industries have been used to reduce GHG emissions from the sectors, the effectiveness of agreements is in doubt. Much of empirical evidence indicates individual industries and actors do not take actions far beyond business as usual without a robust regulatory threat from the government, or a cultural element that makes companies accountable to public pressure (Climate Policy Info Hub 2015). This reveals the inherent weakness of a bottom-up approach.

While both models stand against each other with regard to the authority in promoting collective action and hold different methods either environmental regulations (top-down) or social movements (bottom-up), they possess the similar vein implicitly in assuming the hierarchical structure of decision-making process and separate realms, interests, and choices between public and private. Given these features, making a choice between the two models is less likely to raise ambition.

2.3. THE ALTERNATIVE MODEL TO RAISE AMBITION

Given the complex and dynamic interdependent societies from local to global scale, the 'hybrid multilateralism' arises (Bäckstrand et al. 2017; Gallo-Cruz 2017; Kuyper et al. 2018). The definition of 'hybrid multilateralism' here refers to interplay between "the established multilateral negotiations and the plethora of self-organizing governance initiatives" (Dryzek 2017, p.789) involving state and diverse non-state actors from civil society organizations, multinational companies (business and trade unions), academics and subnational or substate actors (regional local governments, cities, and municipalities) through the formal and informal process (Luckhurst 2018).

Hybrid multilateralism combines top-down and bottom-up elements. Voluntary pledge of the national commitments indicates the bottom-up feature in which the commitment is not negotiated, as would be the case in a pure top-down system. Nevertheless, the review system of national commitments which leads to a public evaluation manifests the top-down characteristics combined with strong MRV and credible accounting procedures in which ambition is likely to be enhanced from international pressure by providing transparency that is akin to a "naming and shaming" of governments with an insufficient ambition of the pledge (Climate Policy Info Hub 2015).

The limits of the conventional models presents two conditions in boosting the ambition; first, recognizing from individual states and non-state actors "that their priority issues or institutional reforms can benefit from a global systemic, coalition-supported efforts"– *Socialization*; second, "arising more significant opportunities for exploiting linkages between innovative proposals across distinct sectors and institutional settings," effectively exercising leverage of all committed stakeholders – *Network* (The Stimson Center 2019, p.5).

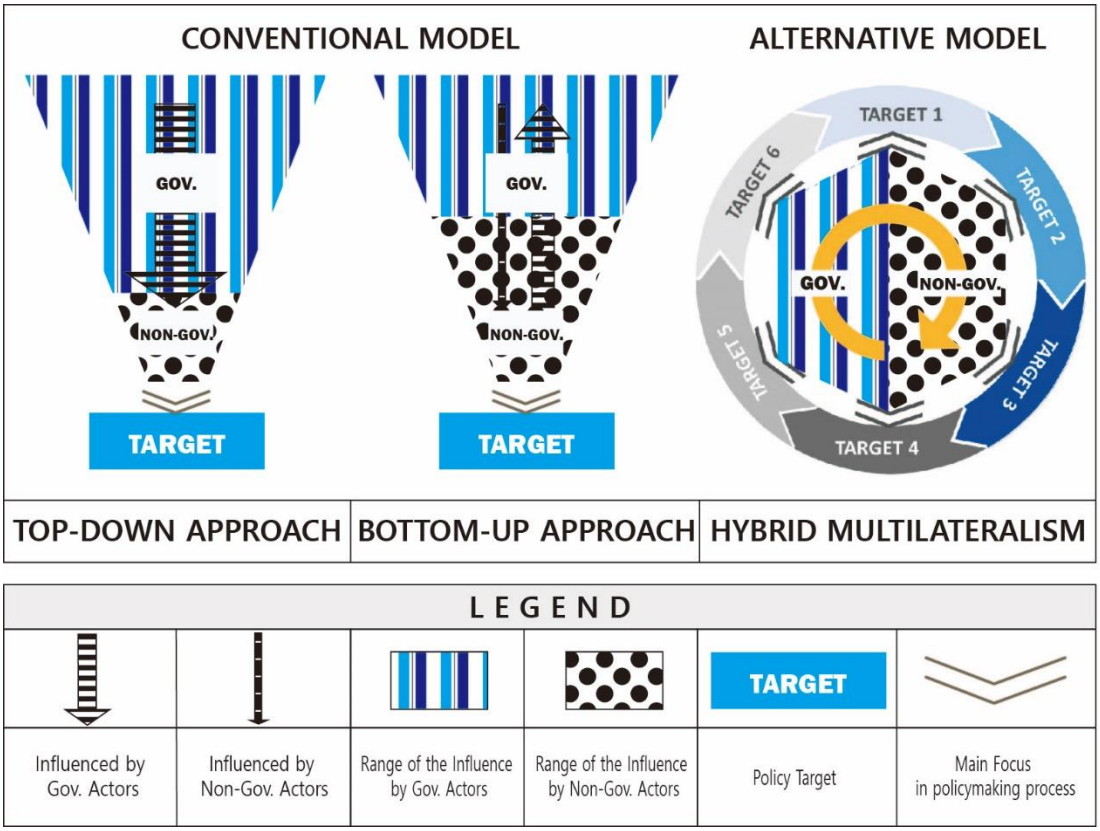
'IR' constructivists have focused on 'socialization effects' through "the constitution or diffusion of particular governance or policymaking norms and practices" (Luckhurst in-press, p.2). Dominant peer groups in international society will influence on the policy-making process with their identities and interests through the endogenous and suasion-induced process. With "a web of sustained exchanges and relations based on the long-term goal of integration, the target states' interests are redefined, and its identity possibly altered, so as to take into greater account the integrity and order of the system" (Terhalle and Depledge 2013, p.576; see also Goh 2007, p.121).

Meanwhile, the interlocking process between diverse actors leads to polycentric systems. The polycentric system is defined as multi-levels of government of the decision-making units in

which governing authorities (e.g., local, state, and national) are characterized by multiple and overlapping jurisdictions at different scales and also “special-purpose governance units that cut across jurisdictions” (Carlisle & Gruby 2019; Mathias et al. 2017). In this context, ‘orchestration’ is paid attention as the critical function in the hybrid multilateralism. “Orchestration is what an authority does when it realizes the limits on its power while recognizing the existence of ‘intermediaries’ who share its goals, and who might be able to pressure states or other target actors to do the right thing in terms of those goals, and then monitor and evaluate the degree to which goals are being achieved” (Dryzek 2017, p.790). With regards to the intermediaries, non-state actors mainly take the role by closing the gap between different jurisdictions, harmonizing and coordinating different interests and priorities, facilitating information sharing, and intensifying pluralistic approaches through expanding the room for new technologies. With their flexibility and professional knowledge, non-state actors have sufficient capacities in significantly increasing 'transparency' and 'accountability' in the policy-making process.

What is more critical, non-state actors play a vital role to not only change in the venue or form of competition but also lead to a qualitative transformation from a winner-takes-all competition, to one conducted with a consciously acknowledged win-win mode in which rational actors who sought for maximizing their quantitative gains will change their behavior to pursue qualitative accumulations such as 'cognitive authority' and fame under the transparent mechanism. By leading to a reconciliation mechanism between competition and cooperation, which is conceptualized as 'humanitarian competition' by Makiguchi (1903), non-state actors play a leading role in raising ambition. In the sense that hybrid multilateralism highlights diversifying actors and interlinkage between macro to micro levels of jurisdictions, the new governance is standing out to break out the carbon lock-in system. [Figure 3]

Figure 3. Conceptual Diagrams of the Theoretical Framework



3. ANALYTICAL DESIGN

3.1. SELECTION CRITERIA FOR COUNTRIES

While many scholars have been criticizing the inability of the domestic government actors for being slow and not achieving a substantial outcome, it nevertheless remains the institution with the highest degree of legitimacy under the Pledge and Review System. As the Paris Agreement gives substantial descretions to governments, the doemstic political will is crucial in raising ambition. In this vein, facilitating effective action against the climate crisis and achieving the long-term goal will depend on the inclination of both OECD countries and newly industrializing countries to take costly actions (Keohane and Oppenheimer 2016). For this reason, this article selects two states: the United Kingdom and South Korea. These two states are regarded as big emitters globally according to their carbon emissions per capita. Their climate performance is assessed differently, showing an opposite emission pattern. Through an in-depth analysis of each country's climate policies, the institutional architecture, and the role of non-state actors, this article will test the

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theoretical assumption of the hybrid multilateralism.

3.2. ANALYTICAL UNITS

Given two conditions in raising the ambition: 'socialization' and 'polycentric,' the role of non-state actors will play in both causing competition via 'naming and shaming' instruments and facilitating cooperations as the interchange between multi-levels of jurisdiction. In this vein, two analytic themes are the main focus – fit and acceptability in analyzing non-state actors' implications

Fit

There are two thematic issues in international climate governance; the first one is misfit to the purpose – for instance, the international climate regime has misled into the debate on emission cut, exacerbating politicization between developing and developed countries in world politics as well as between existing industries and emerging industries; second is misfit between macro to micro process. The gap between the UNFCCC and the domestic policy-making process exists in implementing policies. These two issues will shed light on the influence of non-state actors in raising ambition.

Acceptability

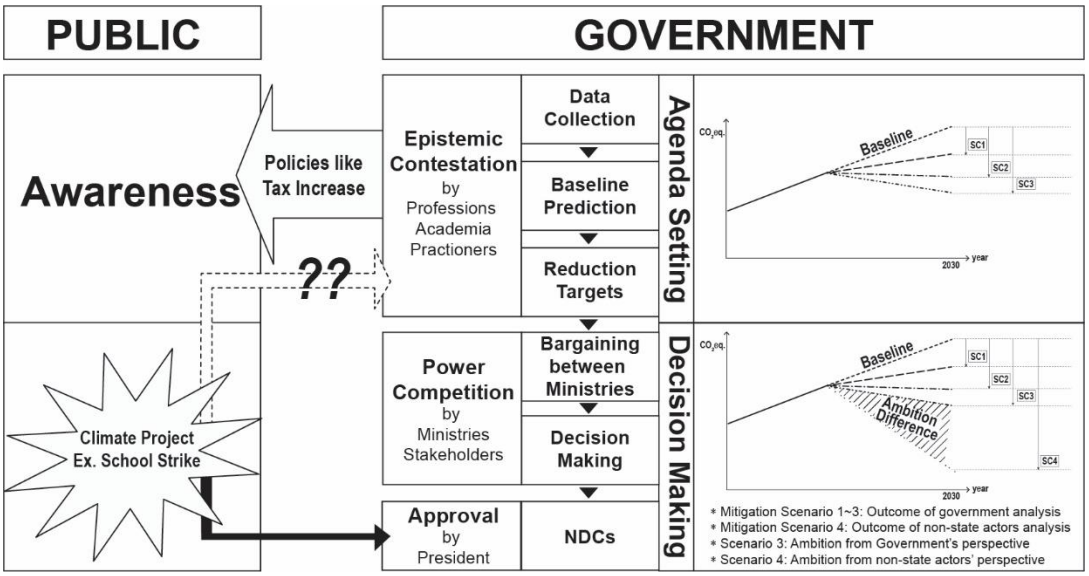
There are two areas to focus on: first, whether the government has acceptability or flexibility to embrace pluralistic options, in particular during the agenda-setting stages. Second, whether the public has a substantial understanding to bear the responsibility for the social transformation – for instance, the increasing electricity bill.

When it comes to the setting process of the national commitments, it can be divided into two parts. In general, during the agenda-setting stage, the range of the national ambition is roughly determined through technical analysis in each sector. For instance, in the energy sector, mitigation policies can be categorized with three issues: the replacement resources from fossil fuels to renewable energy, the improvement of energy efficiency, and the behavior change of consumers. By diversifying the involvement of actors and policy options, in particular, non-state actors from new environmental technologies and business fields, government actors can find a new development strategy beyond the carbon lock-in system. Also, transnational actors are able to contribute to reducing the uncertainty in the policy-making process by sharing lessons and information from advanced cases. For instance, government actors are afraid of the risk of noise pollution, bird strike problems, even a blackout resulted from the installation of the \onshore wind farm. However, through the consultation, forum, or small meeting with energy experts from the

International Renewable Energy agencies, domestic policy-makers are empowered or motivated to set more ambitious policy instruments. Thus, non-state actors contribute to expanding the acceptability of government actors by providing diverse and pluralistic policy options.

Secondly, non-state actors also contribute to enhancing socially acceptable levels regarding responsibility, such as the burden of taxation. Through social movement and education, ordinary citizens can understand the seriousness of the problem. What is more important, their endurance of policy outcomes can be increased by awareness of the environmental policy process that it takes time to reap the visible effects. This is critical to construct political will and design consistent and sustainable public policies [Figure 4].

Figure 4. The Concept of Acceptability in the Policy-Making Process



4. LEGAL FRAMEWORK

The growing exchange between international relations scholarship and international legal scholarship sheds light on the difficulties involved in climate regime design. The utility of negotiating international agreements to govern "a complex, polycentric, and seemingly intractable policy challenge" (Bodansky et al. 2017) has been contested for several decades.

At the same time, states have developed a significant body of international law in response, since climate change has strikingly surfaced as the urgent issue of world politics in the 1980s. With the adoption under the auspices of the 1992 United Nations Framework Convention on Climate Change (UNFCCC), including the 1997 Kyoto Protocol, the 2015 Paris Agreement, and a variety of decisions of the parties to these instruments, treaty-based laws has formed the climate regime (Gupta 2016). But, such progress has not corresponded with similar progress in implementation (Popovski 2019), as much current literature focuses on theoretical and empirical issues concerning the effectiveness of the international environment regime (Breitmeier 2011).

Drawing from the literature on collective action on commons (Hardin 1968; Olson 1971; Ostrom 1990), the strong free-rider incentives are manifested as the main obstacle to accelerate the effective implementation. Furthermore, the divergent perspectives which have dominated the international policy response to climate change aggravate the collective action problem, bring about "increasing multipolarity/polycentric for climate change regulation" (Peel and Osofsky 2013). For example, while the EU countries mainly consider the climate change issue as an environmental problem, many non-European developed countries (in particular, the US) regard the issue as an economic problem. Moreover, many developing countries view the issue as an ethical problem (historical and economic injustices) (Bodansky et al. 2017). In order to overcome the cumbersome issues and to secure the principle of *pacta sunt servanda* under the anarchical society, the main focus of the international climate regime has been to formulate international treaties to facilitate cooperation or coordination among states by means of 'coercion' or 'persuasion' mechanisms (Goodman and Jinks 2004). However, as a common observation among international lawyers and constructivist IR scholars is that law is "much more about process than about form or product" (Finnemore and Toope 2001, p.750), the legitimacy of international law relies on "the processes of mutual construction by a wide range of participants in a legal system" (Brunnèe & Toope 2000) and can only be materialized when "legitimacy norms are necessarily internalized into agent identity and observing its utility as a strategic resource" (Loomis 2012).

Echoing the argument, the Paris Agreement, and its accompanying decision (Decision

1/CP.21) in 2015, as well as, the Talanoa Dialogue in 2018 manifests the shift of the mechanisms in international law – *acculturation*. In this process, this article systematically analyzes the role of non-state actors to play in socialization.

4.1. THE UNFCCC & THE KYOTO PROTOCOL

The IPCC's first assessment report in 1990 crystallized the climate crisis as the human-induced problem. Subsequently, the prominent global level legally binding environment regime, the UNFCCC was established with several fundamental principles of international environmental law: the precautionary principle and the common but differentiated responsibilities and respective capabilities principle. These principles articulated normative consensus on the climate change problem as 'the division of pie' – allocating permissible emissions. Furthermore, the normative frame implicitly connoted that increasing emissions might be inevitable until the maturity stage of economic growth. Hence, certain restrictive conditions to constrain states' behavior, in particular of industrialized countries, to secure Pareto-optimal outcomes in the limited carbon space became a primary concern in climate negotiations.

The Kyoto Protocol is a typical example of the regime designed with the standard neoclassical model of rational behavior. The underlying mechanism is a 'utilitarian calculus in relation to the optimal level of global emissions' (Brennan 2009) with a binding quantitative commitment to cut GHG emissions. The Kyoto Protocol required industrialized countries (Annex I Parties) to reduce their collective emissions of greenhouse gases by 5.2%, compared to 1990 levels, to report regularly on their climate policies and to submit an annual inventory of their greenhouse gas emissions, including data for the base year (1990) and all years since.

As the example of a classical 'hard law.' the Compliance Committee of the UNFCCC would impose sanctions on non-compliant parties – For instance, the sanction would be an additional deduction from the Party's assigned amount for the second commitment period of 30%.[1]

However, the maximization hypothesis and its methodological foundation have been criticized in terms of its effectiveness in reducing carbon emissions. Indeed, according to the data from the first commitment period (CP1) of the Kyoto Protocol published in 2014, those parties overachieved their reduction targets by 24%, but it brings about another issue: "hot air" – do not represent substantial emissions reductions (Morel and Shishlov 2014).

The exclusion of China and India from binding commitments, and the subsequent refusal

[1] Marrakesh Accord, 15.5(a)

to ratify US commitments under the Kyoto Protocol catalyzed the withdrawals by primary emitters (Agrawala & Andresen 2001). This indicates that the constrained maximization of utility with small actors and top-down imposition of the regulations does not have an impact effectively on "so complex, uncertain, and nonlinear, possibly super-wicked unstructured problems" (Gupta 2016, pp.193), which limited incentives for innovation and policy experimentation at a time when best practices for GHG reduction were not established (Rosen 2015). Also, the participation of non-state and sub-state actors was relatively limited (Held & Roger 2018) in setting the agenda and implement policies. As the IPCC claimed that some climate change is unavoidable and irreversible (IPCC 2014), the Kyoto Protocol has come to an end with the failure of its primary mission: to cut the number of emissions.

4.2. THE COPENHAGEN ACCORD

Despite the fact that the US rejected the Kyoto Protocol, the global community decided to discuss a new start to dealing with the climate change problem rather than an end to the international negotiating process at the COP13 in Bali. Diplomats in Bali decided to proceed to Copenhagen along two parallel negotiating tracks to determine post-2012 global action on climate change. One group – the Ad Hoc Working Group on Further Commitments for Annex I Parties under the Kyoto Protocol (AWG-KP) – excluded the United States and was specifically designed to determine developed countries' emission reduction targets in the post-2012 period. The second group – the Ad Hoc Working Group on Long-Term Cooperative Action (AWG-LCA) – included the U.S., and like the AWG-KP, it sought a post-2012 global climate regime, but it was less constrained by the existing dynamics of the Kyoto Protocol (Spak 2010). Moreover, the second negotiation track was intended to secure the involvement of Non-Annex I states, in particular with the aspect of including mitigation efforts by them, some of which (e.g., China) had seen their emissions increase dramatically in the years since Kyoto.

Although these two tracks were expected to converge and produce a successor agreement of the Kyoto Protocol at the COP15 in Copenhagen, the relationship between the two tracks was repeatedly contested in the years that followed (Held & Roger 2018). For Non-Annex I countries' participation, they emphasized on the precondition of the adoption by wealthier parties of a separate commitment to a second Kyoto period, while most Annex I countries claimed a more integrated approach in which all moved forward under the same legal regime. Big political differences and discontent over the process meant that no consensus was reached over a range of

issues, from the overall emissions target and the legal form of the agreement to financial arrangements and the distribution of responsibilities (Held & Roger 2018). As a result, the COP15 in Copenhagen ended up as a deal outlining a more minimalist approach to the problem of climate change: the Copenhagen Accord (Held & Roger 2018), setting a long-term target of limiting global temperature to 2℃ above pre-industrial levels. Copenhagen repeated the mistake of its predecessor, in which the focal point of the conference was the proposed rules for mitigating climate change.

This framing triggered the perspective of seeing climate protection as an economic burden and impediment to development (Hermwille et al. 2015), compounded by the uneven impact of the global financial crisis in 2008. Also, from the view of constructivist, Terhalle and Depledge (2013) pointed out the governance-related processes of institutionalization and norm diffusion have failed to socialize rising powers such as China into the existing order, while at the same time failing to enmesh both 'indispensable' great powers (China and the US) into global governance structures.

However, Copenhagen played a role as a stepping stone to shift the paradigm of global climate governance from the 'top-down' to the 'bottom-up' approach. Furthermore, the appearance of soft mechanism in which it has little pressure on states to comply – monitoring, reporting, and verification (MRV) and international consultation and analysis (ICA) and the receding kinds of arrangements established by the Kyoto Protocol designed to ensure states fulfilled their obligations led to much more extensive participation of states. Furthermore, the role of non-state actors had become much more critical within the domain of climate change since the signing of the Kyoto Protocol; however, the involvement of multiple actors in the governing of the regime was not harmonious and consensual process (Bulkeley & Newell 2010).

4.3. THE PARIS AGREEMENT

The climate policy stance obsessed with constrained maximization of utility (Lenz et al. 2016) has been maintained until the Copenhagen Accord in 2009. Thus, despite the shift of the approach from top-down to bottom-up, the Accord ended up as the 'empty institutions' in which this did not produce any policy powers, deprived of any capacity for policy formulation or implementation (Dimitrov 2019). However, the existence of political gridlock led to the adoption of the new type of international agreement – hybrid multilateralism. Because the COP 15 in Copenhagen succeeded in laying the ground for a new approach in which the negotiation outcome has now come to fruition (Falkner et al. 2010) and foreshadowed many of the elements now contained in the Paris Agreement.

Ambition in National Commitments following from the Paris Agreement on Climate Change

The COP21 in Paris in 2015 brought to an end over 20 years of UN negotiations focused on a misguided approach of establishing mandatory emission reductions (Falkner 2016). Furthermore, the Paris Agreement was assessed as an extraordinary political and legal success achievements in the sense that it broke the stereotype of negotiations for environmental problems which go along with a loss of diversity of options, not only regard to biodiversity but also in terms of cultural and economic diversity (Lenz et al. 2016).

Under a Pledge and Review system, the Paris Agreement gives governments substantial discretion in which countries set voluntary their level of ambition for climate change mitigation and should submit the new INDCs in the progressive and iterative manner every five years.[2] Under the principle of transparency and accountability, the global ambition is expected to be increased through a process of 'naming and shaming' and 'learning by doing' by means of 'Global Stocktake'[3] and 'Facilitative Dialogue".[4] This shift can be seen as a signal of a qualitative transformation in socio-economic systems embedded into free-market fundamentalism (Klein 2014). Far from a winner-takes-all style of competition people conducted within the consciously acknowledged framework of cooperative win-win mode according to the logic of "Humanitarian Competition" defined by Makiguchi (1903).

Meanwhile, from the lesson of mishandling the negotiations by the Danish hosts at the 2009 Copenhagen Conference (Meilstrup 2010), the French presidency prepared the ground with a more inclusive approach, skilfully reaching out to a wide range of actors – governments, business leaders and NGOs – in the preparatory meetings for COP21 (Falkner 2016). This manifests the shift of the landscape of climate governance towards more plural, diverse, and multifaceted global governance networks (Luckhurst 2019).

Despite the advent of the new model, however, current commitments expressed in the NDCs manifest that many governments take advantage of the vagueness of obligations, and the discretion that it permits, to limit the scope or intensity of their proposed actions (Keohane & Oppenheimer 2016). In order that the global governance function effectively, there are two critical roles of the instituion: 'hub' and 'steering committee.' 'Hub' indicates the forum's substantial influence on policy processes and practices of global governance, and 'steering committee' refers to its deliberative and framing functions in managing global issues (Luckhurst 2019).

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[2] Paris Agreement, Art 4.9

[3] Paris Agreement, Art 14.2

[4] Decision 1/CP.21, Adoption of the Paris Agreement, FCCC/CP/2015/10/Add.1, 29 Jan. 2016, para. 20.

While the UNFCCC process has produced diverse mechanisms as a steering committee, its capacity has been limited in order to exert its influence as a 'hub' because of the consensus-based decision-making process and sovereignty issue. However, the novelty of the Paris Agreement is that it replaces the temporary commitments in emissions reduction from the Kyoto Protocol with long-term phase-out goals by the second half of the 21st century. Through 'ratchet mechanism' [5], it is expected that ambition is likely to be gradually increased over time to achieve the long-term goal "to limit the temperature increase to 1.5°C above pre- industrial levels"[6] and to ensure that the global society reaches net-zero emissions in the second half of the century (IPCC 2018).

Nevertheless, the recent UNEP report publishes that "the required cuts in emissions are now 7.6 percent per year on average from 2020 for the 1.5°C goal," which becomes twice higher than if climate action began in 2010 (UNEP 2019, p.10). Given the gravity of the challenge and time scale, it is clearly manifesting that the involvement of non-state actors has little effect on the policy-making process, although they have contributed to transforming global governance cooperation.

Table 1. Comparison of Three Climate Models

Model Elements	The Kyoto Protocol	The Copenhagen Accord	The Paris Agreement
View of Problem	Environment Protection	Economic Burden Impediment to Development	Development & Social Issue
Logic of Negotiation	Address the Ethical Responsibility	Divide the Pie: Carbon Space	Share Information Learning by doing
Target	Ave 5.2% Reduction Goal	2℃ Global Limit	1.5 - 2℃ Global Limit
Legal Nature	Binding	Non-Binding	Hybrid
Governing Logic	Regulatory	Voluntary	Catalytic
State Participation	Narrow	Wide	Near-Universal
Differentiation	Hard	Medium	Soft
Non-Party Actors	The minor role, strictly delegated by UNFCCC	Larger role but independent of the UNFCCC process	The significant role, involving UNFCCC 'orchestration'

* Revise the table from (Held & Roger 2018) and (Gupta 2010)

[5] Paris Agreement, Art 4.9

[6] Paris Agreement, Art 2.1(a)

5. ACTORS AND INSTITUTIONAL STRUCTURE

The ambition depends on socialization – diffusing norm of sustainable development and low-carbon society as well as a polycentric system – network. In this sense, the role of intermediaries between top-down and bottom-up and side to side is increasingly highlighted, and many scholars expect that non-state actors take a leading role in this context. By reconciling competition and cooperation between states, ministries, and stakeholders, non-state actors will significantly contribute to the complete transformation of our carbon lock-in economy system. An in-depth analysis of climate performances by two countries reveals the empirical evidence of two conditions in raising ambition.

5.1. AMBITION BY NON-STATE ACTORS

Non-state actors play a vital role in closing the gap between the UNFCCC and the domestic policy process and generating the climate consensus toward a low-carbon economy by intensifying their norms and strategies through “professional ecologies” (Luckhurst 2019).

The UK has been assessed as a role model in climate action (CAT 2019; CCPI 2020). At the core of climate politics, the Committee on Climate Change exists as the fulcrum of the UK climate change architecture. Under the Climate Change Act 2008, the CCC was established as an independent, statutory body. The main purpose is to advise the UK government and Developed Administrations on emissions targets and report to Parliament on progress made in reducing greenhouse gas emissions and preparing for climate change. By providing the long-term legislative targets, conducting independent analysis, this contributes to increase political ambition. Furthermore, consistent monitoring of adherence to the Climate Change Act's objectives on an ongoing basis makes it possible to implement the Act consistently over the long haul regardless of the regime change. Furthermore, as Annex-I parties of the UNFCCC, the UK complies with its reporting obligations with a strong MRV system. By indicating their performance transparently, the UK contributes to building trust in conducting global climate politics.

On the other hand, South Korea has been criticized with insufficient climate action (CAT 2019; CCPI 2020). In the climate change mitigation policy-making process, the Greenhouse Gas Inventory & Research Center of Korea (GIR) has taken the pivotal roles.

With regard to the social background for climate action, it was not long to establish legitimacy before the Korean National Assembly enacted the Framework Act on Low Carbon, Green Growth in 2010. Before the Framework, a number of environmental protection laws existed as only fragmented laws and regulations. The intense focus on economic growth based on the “free-

market fundamentalism" (Kelin 2014) has been the obstacle to constructing comprehensive and robust environmental laws. However, when the Korean Government committed to achieving a significant cut in emissions through a shift from energy-intensive industries to low-carbon ones in 2009 – a 30 percent cut, compared to 2020 BAU level, it needed the legal grounds on which to build the implementing system for green growth, in particular, the Presidential Committee on Green Growth, then to mandate that committee with the power to develop a five-year plan for the national strategy for green growth. In this context, GIR was established in 2010.

As a think-tank of national climate policies, GIR plays a vital role in supporting the establishment of the national/sectoral GHG reduction target and operating the UNFCCC process. However, unlike the CCC in the UK, GIR is part of the government organizations. Thus, climate policy making-process is substantially pursued as a top-down strategy with the lack of process to consider plural options of policies. Although a variety of non-state organizations such as the Korean Federation for Environment Movement, Climate Change Center, and Korea NGO's Energy Network occupies an essential position in having an impact to individual behavior and the institutions that are involved in environmental protection, their focus remains somewhat the general environmental movement such as grass-roots mobilization. They have an impact on the national policy-making process with collaboration with national and international partners; however, the informal and temporal involvement confines their role to critics of insufficient ambition. This deprives diverse non-state actors of opportunities to contribute to putting knowledge and evidence of ambitious and innovative instruments into practice. In light of this, the absence of an independent body and regular participation of non-state actors, in particular, in the agenda-setting stage is significantly attributable to the stagnant ambition in South Korea.

5.2. AMBITION BY INSTITUTIONAL ARCHITECTURE

"A good framework law does not guarantee automatic policy delivery. Climate change action is driven by a shared understanding of its importance" (Frankhauser et al. 2018). As the carbon lock-in is shown, the institutional structure has been evolved according to its path-dependent process. Furthermore, each ministry has its own priority in the policymaking process. Given the fact that the climate change issue is related to economy-wide behaviors, harmonizing of each ministry's interest and the unified mechanism on GHGs management such as balancing statistic data and reducing asymmetric information is the crucial determinant of success in policy implementation. Thus, in the aspect of fit in data management, the existence of an institutional body to compile

information and embrace different priorities by all ministries is a critical variable in raising the ambition. Also, in the aspect of acceptability, the existence of an independent body to compare the ambition in policy target is the other important variable [Figure 5].

In terms of the issue of fit in data management, both countries establish the institution: in the UK, Department for Business, Energy, and Industrial Strategy (BEIS) coordinates UK policy on climate change at the official level through inter-departmental committees chaired by BEIS. A Cabinet Committee chaired by the Chancellor of the Exchequer makes decisions at ministerial level (UK NC7, 2017). Meanwhile, in South Korea, GIR has a mandate of tasks related to the national GHG inventory. Furthermore, the Management Committee is the decision-making body, chaired by a Vice Minister of Environment. In terms of the issue of acceptability, there is no independent body to consult and compare national commitments in South Korea. This indicates the main reason for the difference in the ambition between the UK and South Korea.

Figure 5. Conceptual Diagrams of Institutional Structure Types

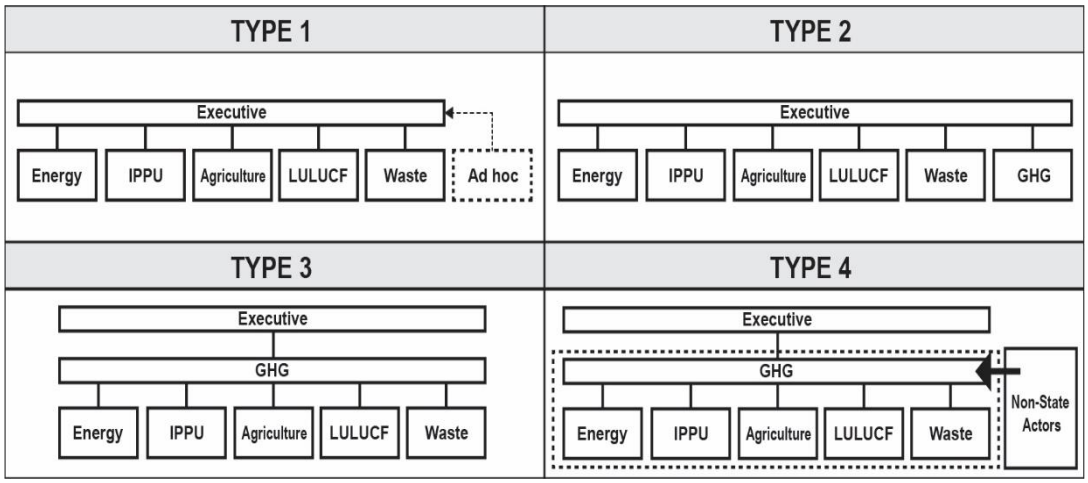


Table 2. Comparison of Climate Action between the UK and South Korea

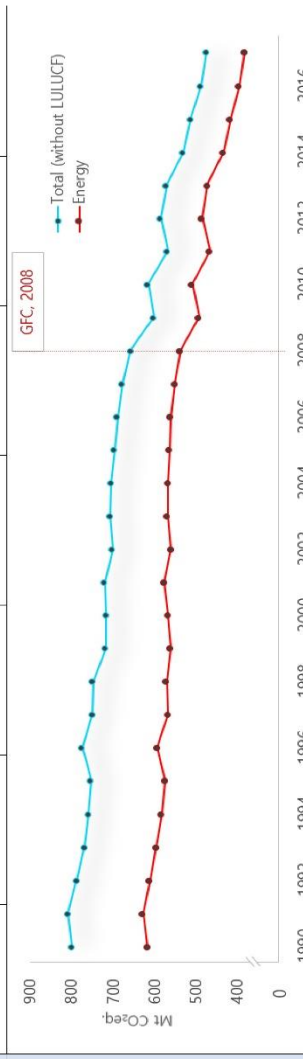
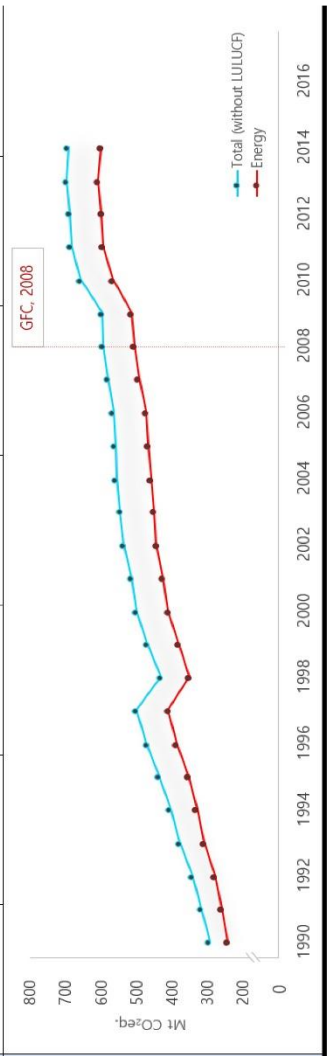
Category	The United Kingdom			South Korea			
Climate Action (General)							
	Ambition	Paris' target	Assessment*	Report(UNFCCC)	Ambition	Paris' target	Assessment*	Report(UNFCCC)
	High	↓ 40% by '30 / '90	Role model	Mandatory	**Low**	↓ 37% by '30 /BAU	Insufficient	Voluntary
National Circumstances	**i Population** · The average annual population growth rate stable (equivalent to 0.5% between 2016 and 2039) · Aging with the median age **ii Economy and Industry Profile** · Developed, 6th largest economy (GDP) in the world, 2019 · Main Industry: Service Sector (79%) [GDP('15)] **iii Political Structure (Parliamentary parties)** · Two parties dominate but, strong multi-party system (Conservative & Unionist Party vs. Labor Party) · NO. of Parties: 10, Seats of Green Political Party: Exist (2019)				**i Population** · The average annual population growth rate gradually decreased (dropped sharply to less than 0.5% in 2005) · Transforming toward an aging society at a very rapid pace **ii Economy and Industry Profile** · Developed, 12th largest economy (GDP) in the world, 2019 · Main Industry: Exports(37.5%) & Manufacturing(30.4%)[GDP('17 **iii Political Structure (Parliamentary parties)** · Two parties dominate, weak multi-party system (Social Liberal vs. Social Conservative Party) · NO. of Parties: 9, Seats of Green Political Party: Absence (2019)			
Climate Action (Specific)								
International Architecture	**i Status in the UNFCCC** · Annex I & Annex B · Party Groupings: The European Union · Advocator for active climate action **ii Membership of organizations for climate action (Informal meetings)** · Diverse and active (G20, OECD, IRENA, IEA, etc.)				**i Status in the UNFCCC** · Non-Annex I · Party Groupings: The Environmental Integrity Group (EIG) · Bridge bet. Developed and Developing (ex. MOU partnership in training for Climate Action Transparency **ii Membership of organizations for climate action (Informal meetings)** · Diverse and active (G20, OECD, IRENA, IEA, etc.)			
Domestic Architecture	**i Legitimacy** · UK Climate Change Act, 2008 **ii Institutional Structure** · Type 4 in Figure 5 (GHG Management: BEIS, Independent Advisory Body: the CCC) · Coordinator through inter-departmental committees: BEIS · Decision Maker: A Cabinet Committee chaired by the Chancellor of the Exchequer **iii Non-State Actors** · Advisors, regular involvement in agenda-setting				**i Legitimacy** · Framework Act on Low Carbon, Green Growth, 2010 **ii Institutional Structure** · Type 3 in Figure 5 (GHG Management: GIR, Independent Advisory Body: None) · Coordinator through inter-departmental committees: GIR · Decision Maker: The Management Committee chaired by a Vice Minister of Environment **iii Non-State Actors** · Critics, temporary involvement in agenda-setting			

* Assessment by Climate Action Tracker (2019) and Climate Change Performance Index (2020)

Index	4℃+world	<4℃ world	<3 ℃ world	<2℃world	<1.5℃world (Role Model)
CAT	Critically Insufficient	Highly Insufficient	Insufficient	2degree compatibility	1.5 degree compatibility
CCPI	Very low	Low	Medium	High	Very high

Table 3. Comparison of Climate Action between the UK and South Korea

(Statistics Data: Annual Greenhouse Gas Emissions, in mt CO_2eq.)

	GHG emissions	1990 (Base Year)	1998	2008	2017 (recent)	CAGR(`08/`98)	CAGR(`17/`08)	△`17/`90
The UK	Total (WO LULUCF)	798	747	656	474	-1%	-4%	-41%
	Energy Sector	615	569	537	382	-1%	-4%	-38%
	GDP per capita (current US$)	19,095	28,214	47,287	40,361	5%	-2%	111%
	Graph							
	GHG emissions	1990 (Base Year)	2005	2010	2014(recent)	CAGR(`10/`05)	CAGR(`14/`10)	△`14/`90
South Korea	Total (WO LULUCF)	293	559	657	691	3%	1%	136%
	Energy Sector	241	466	565	599	4%	1%	148%
	GDP per capita (current US$)	6,516	18,640	22,087	27,811	3%	6%	327%
	Graph							

* GHG Data from UNFCCC, GDP Data from World Bank (Access: 04/02/20)

6. CONCLUSION

This dissertation analyzes how ambition in national commitments can be raised. Karl Polanyi's contributions to social theory present the endogenous preferences that are at least partially formed and molded by social relations and institutions. In the vein of Polanyi's "embeddedness" theory, Unruh provides the conceptual framework of the "carbon lock-in" process by exploring diverse realms from a micro-unit such as an individual firm to a macro unit such as a national and global level. The description of the prevailing unsustainable routine provides trenchant critics of the existing policy process based on a neoclassical behavioral approach that excludes social externalities in human behavior.

At the initial stage of the UNFCCC, the climate crisis was considered as the distribution of the remaining carbon space. Based on the rational approach, the focus is to constrain maximization of utility with external drivers or hierarchically superior forces in facilitating cooperation and compliance — this top-down approach to an international environment policy agreement embodied in the Kyoto Protocol. However, the fatigue of compliance among governments cast doubts on the top-down approach. Furthermore, the breakdown of negotiations at the COP15 in Copenhagen indicated the fallacy of the assumption on rational state actors. Recognizing the fact that the climate crisis is not only confined to the economic issue but also related to the social problem, the decentralizing patterns of global governance actors have become a trend. This bottom-up approach has undoubtedly contributed to diffuse the environmental norm, but the effectiveness problem arises.

The lessons from two conventional models and much of empirical evidence manifest two conditions in raising the ambition: socialization and polycentric system. In this context, the hybrid multilateralism is emerging as a new type of governance. As the combination model of top-down and bottom-up elements, the hybrid multilateralism is expected to catalyze a reconciliation mechanism between competition and cooperation, which is conceptualized as 'humanitarian competition' by Makiguchi. In this sense, non-state actors are paid significant attention as intermediaries in governments' orchestration.

With two analytical units – fit, acceptability, in-depth analysis of the role of non-state actors, and institutional architecture indicate that socialization and polycentric are critical factors. Case studies of two countries: the UK and South Korea strongly supports the argument that the stagnant ambition is attributed to the lack of institutions and political processes to produce a socially acceptable response toward low-carbon economy society. Thus, raising ambition depends

on how the governments play an effective and significant role as the center of 'non-hierarchical orchestration' in collaboration with transnational and multilateral actors.

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